

Dear colleagues,

happy New Year! In addition to recent publications on ASL, you will find a job offer and two featured articles on ASL reconstruction and quality control in this first ASL Newsletter in 2019. For those of you interested in networking and scientific exchange, check out the upcoming [ASL workshop](#) and submit your abstract until January 10.

Kind regards,
Klaus

Content:

Publications in December 2018	2
Cerebral Blood Flow Studies.....	2
Studies on Special Disease	2
Comparison of ASL Techniques / ASL Compared with Other Imaging Methods / ASL Combined with Other Imaging Methods	3
Physiological Parameters besides CBF	4
ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data Corrections/ Postprocessing	4
ASL at Field Strength > 3T	5
Cohort Studies / Gender- and Age Dependencies	5
Pharmacological / Drug Studies / Studies on the Effects of Therapies	5
Screening / Prognosis / Prevention	6
Technical Improvement / Parameter Optimization	6
Animal Studies.....	7
ASL for Angiography	7
ASL in Kidneys	7
Others	7
Review Paper / Historical Review / Guidelines	8
Job Offerings	9
Featured Articles	9

Epub & Print

Note: The '*new*-flag' is assigned to articles which haven't been in earlier newsletters (e.g. as e-publications). Additionally you will find titles printed in bold letters which indicates that they are listed for the first time in this particular newsletter. For articles listed multiple times in different sections the bold letters disappear in the later sections.

Publications in December 2018

Cerebral Blood Flow Studies

Studies on Special Disease

new

Quantitative histopathologic assessment of perfusion MRI as a marker of glioblastoma cell infiltration in and beyond the peritumoral edema region.

Vallatos A, Al-Mubarak HFI, Birch JL, Gallagher L, Mullin JM, Gilmour L, Holmes WM, Chalmers AJ.

J Magn Reson Imaging. 2018 Dec 19. doi: 10.1002/jmri.26580. [Epub ahead of print]

new

Comparisons Between PET With 11C-Methyl-L-Methionine and Arterial Spin Labeling Perfusion Imaging in Recurrent Glioblastomas Treated With Bevacizumab.

Beppu T, Sato Y, Sasaki T, Terasaki K, Yamashita F, Sasaki M, Ogasawara K.

Clin Nucl Med. 2018 Dec 17. doi: 10.1097/RLU.0000000000002417. [Epub ahead of print]

new

Reduction of cerebral blood flow in community-based adults with subclinical cerebrovascular atherosclerosis: A 3.0T magnetic resonance imaging study.

Han H, Zhang R, Liu G, Qiao H, Chen Z, Liu Y, Chen X, Li D, Wang Y, Zhao X.

Neuroimage. 2018 Dec 12;188:302-308. doi: 10.1016/j.neuroimage.2018.12.021. [Epub ahead of print]

new

Multidelay multiparametric arterial spin labeling perfusion MRI and mild cognitive impairment in early stage Parkinson's disease.

Suo X, Lei D, Cheng L, Li N, Zuo P, Wang DJJ, Huang X, Lui S, Kemp GJ, Peng R, Gong Q.

Hum Brain Mapp. 2018 Dec 7. doi: 10.1002/hbm.24451. [Epub ahead of print]

new

Arterial spin labeling provides a reliable neurobiological marker of autism spectrum disorder.

Yerys BE, Herrington JD, Bartley GK, Liu HS, Detre JA, Schultz RT.

J Neurodev Disord. 2018 Dec 13;10(1):32. doi: 10.1186/s11689-018-9250-0.

[Free PMC Article](#)

new

Hemodynamic provocation with acetazolamide shows impaired cerebrovascular reserve in adults with sickle cell disease.

Václavů L, Meynart BN, Mutsaerts HJ, Petersen ET, Majoie CB, VanBavel ET, Wood JC, Nederveen AJ, Biemond BJ.

Haematologica. 2018 Dec 6. pii: haematol.2018.206094. doi: 10.3324/haematol.2018.206094.

[Epub ahead of print]

[Free Article](#)

new

Monitoring Value of Multimodal Magnetic Resonance Imaging in Disease Progression of Amyotrophic Lateral Sclerosis: A Prospective Observational Study.

Shen DC, Xu YY, Hou B, Tai HF, Zhang K, Liu SW, Wang ZL, Feng F, Liu MS, Cui LY. Chin Med J (Engl). 2018 Dec 20;131(24):2904-2909. doi: 10.4103/0366-6999.247214.

[Free Article](#)

new

Differentiation between vestibular schwannomas and meningiomas with atypical appearance using diffusion kurtosis imaging and three-dimensional arterial spin labeling imaging.

Lin L, Chen X, Jiang R, Zhong T, Du X, Xu G, Duan Q, Xue Y.

Eur J Radiol. 2018 Dec;109:13-18. doi: 10.1016/j.ejrad.2018.10.009. Epub 2018 Oct 12.

new

Arterial spin labeling perfusion: Prospective MR imaging in differentiating neoplastic from non-neoplastic intra-axial brain lesions.

Soni N, Srintharan K, Kumar S, Mishra P, Bathla G, Kalita J, Behari S.

Neuroradiol J. 2018 Dec;31(6):544-553. doi: 10.1177/1971400918783058. Epub 2018 Jun 12.

Comparison of ASL Techniques / ASL Compared with Other Imaging Methods / ASL Combined with Other Imaging Methods

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Development and evaluation of an arterial spin-labeling digital reference object for quality control and comparison of data analysis applications.

Antolak AG, Jackson EF.

Phys Med Biol. 2018 Dec 12. doi: 10.1088/1361-6560/aaf83b. [Epub ahead of print]

new

[Prefrontal GABA levels, hippocampal resting perfusion and the risk of psychosis.](#)

Modinos G, Şimşek F, Azis M, Bossong M, Bonoldi I, Samson C, Quinn B, Perez J, Broome MR, Zelaya F, Lythgoe DJ, Howes OD, Stone JM, Grace AA, Allen P, McGuire P.

Neuropsychopharmacology. 2018 Dec;43(13):2652-2659. doi: 10.1038/s41386-017-0004-6.

Epub 2018 Jan 30. Erratum in: [Neuropsychopharmacology. 2018 Oct 2;.](#)

[Free PMC Article](#)

Physiological Parameters besides CBF

new

[Mapping water exchange across the blood-brain barrier using 3D diffusion-prepared arterial spin labeled perfusion MRI.](#)

Shao X, Ma SJ, Casey M, D'Orazio L, Ringman JM, Wang DJJ.

Magn Reson Med. 2018 Dec 18. doi: 10.1002/mrm.27632. [Epub ahead of print]

new

[Non-invasive MRI of brain clearance pathways using multiple echo time arterial spin labelling: an aquaporin-4 study.](#)

Ohene Y, Harrison IF, Nahavandi P, Ismail O, Bird EV, Ottersen OP, Nagelhus EA, Thomas DL, Lythgoe MF, Wells JA.

Neuroimage. 2018 Dec 15;188:515-523. doi: 10.1016/j.neuroimage.2018.12.026. [Epub ahead of print]

ASL Data Analysis/ Comparison of ASL Evaluation Methods/ Kinetic Models/ Data Corrections/ Postprocessing

new

[ASL-MRICloud: An online tool for the processing of ASL MRI data.](#)

Li Y, Liu P, Li Y, Fan H, Su P, Peng SL, Park DC, Rodrigue KM, Jiang H, Faria AV, Ceritoglu C, Miller M, Mori S, Lu H.

NMR Biomed. 2018 Dec 26:e4051. doi: 10.1002/nbm.4051. [Epub ahead of print]

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[Robust kidney perfusion mapping in pediatric chronic kidney disease using single-shot 3D-GRASE ASL with optimized retrospective motion correction.](#)

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new

[Perfusion abnormality on three-dimensional arterial spin labeling with a 3T MR system in pediatric and adolescent patients with migraine.](#)

Uetani H, Kitajima M, Sugahara T, Kikuchi H, Muto Y, Hirahara T, Tateishi M, Kuroki Y, Yamashita Y.

J Neurol Sci. 2018 Dec 15;395:41-46. doi: 10.1016/j.jns.2018.09.024. Epub 2018 Sep 28.

Pharmacological / Drug Studies / Studies on the Effects of Therapies

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new

[Increased cerebral blood flow after single dose of antipsychotics in healthy volunteers depends on dopamine D2 receptor density profiles.](#)

Selvaggi P, Hawkins PCT, Dipasquale O, Rizzo G, Bertolino A, Dukart J, Sambataro F, Pergola G, Williams SCR, Turkheimer F, Zelaya F, Veronese M, Mehta MA.

Neuroimage. 2018 Dec 13. pii: S1053-8119(18)32172-4. doi: 10.1016/j.neuroimage.2018.12.028. [Epub ahead of print]

Screening / Prognosis / Prevention

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Technical Improvement / Parameter Optimization

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[A general framework for optimizing arterial spin labeling MRI experiments.](#)

Woods JG, Chappell MA, Okell TW.

Magn Reson Med. 2018 Dec 26. doi: 10.1002/mrm.27580. [Epub ahead of print]

new

[A visual quality control scale for clinical arterial spin labeling images.](#)

Fallatah SM, Pizzini FB, Gomez-Anson B, Magerkurth J, De Vita E, Bisdas S, Jäger HR, Mutsaerts HJMM, Golay X.

Eur Radiol Exp. 2018 Dec 19;2(1):45. doi: 10.1186/s41747-018-0073-2.

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[Acceleration of vessel-selective dynamic MR Angiography by pseudocontinuous arterial spin labeling in combination with Acquisition of ConTRol and labEled images in the Same Shot \(ACTRESS\).](#)

Suzuki Y, Okell TW, Fujima N, van Osch MJP.

Magn Reson Med. 2018 Dec 2. doi: 10.1002/mrm.27619. [Epub ahead of print]

Animal Studies

new

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ASL for Angiography

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Magn Reson Med. 2018 Dec 7. doi: 10.1002/mrm.27614. [Epub ahead of print]

Others

DISCUSSION

[Reader response: Increased resting cerebral blood flow in adult Fabry disease: MRI arterial spin labeling study.](#)

Cocozza S, Quarantelli M.

Neurology. 2018 Dec 4;91(23):1071-1072. doi: 10.1212/WNL.0000000000006612. No abstract available.

[Author response: Increased resting cerebral blood flow in adult Fabry disease: MRI arterial spin labeling study.](#)

Werring DJ, Merwick A, Davagnanam I, Phyu P, Bolsover F, Jichi F, Wheeler-Kingshott C, Golay X, Hughes D, Cipolotti L, Murphy E, Lachmann RH.
Neurology. 2018 Dec 4;91(23):1072. doi: 10.1212/WNL.0000000000006621. No abstract available.

[Editors' note: Increased resting cerebral blood flow in adult Fabry disease: MRI arterial spin labeling study.](#)

Lewis A, Galetta S.
Neurology. 2018 Dec 4;91(23):1071. doi: 10.1212/WNL.0000000000006611. No abstract available.

[Review Paper / Historical Review / Guidelines](#)

new

[Imaging of Moyamoya Disease and Moyamoya Syndrome: Current Status.](#)

Li J, Jin M, Sun X, Li J, Liu Y, Xi Y, Wang Q, Zhao W, Huang Y.
J Comput Assist Tomogr. 2018 Dec 26. doi: 10.1097/RCT.0000000000000834. [Epub ahead of print]

new

[A general framework for optimizing arterial spin labeling MRI experiments.](#)

Woods JG, Chappell MA, Okell TW.
Magn Reson Med. 2018 Dec 26. doi: 10.1002/mrm.27580. [Epub ahead of print]

Job Offerings

Post-doctoral fellow position: ASL MRI & Deep Learning

If you have any vacancies please send them to jobs[AT]asl-network.org.

Featured Articles

A visual quality control scale for clinical arterial spin labeling images.

"In this study, the authors were the first to propose a visual quality control (QC) system for ASL images. They used this for several clinical QUASAR datasets, reported inter-rater agreements, and used it to differentiate high from low quality scans. Future automatic QC systems could be compared against this clinical visual QC rating system."

by Henk-Jan Mutsarts & Xavier Golay

ASL-MRISloud: An online tool for the processing of ASL MRI data.

"ASL-MRISloud is an online toolbox for the processing of ASL data. The user can upload the raw ASL data through a web browser and use the computational capacity of the cloud server for processing and quantification. Downloadable outputs include absolute and relative CBF maps as well as ATT maps. Image normalization is also included and region-of-interest values in MNI space are provided."

by Hanzhang Lu

If you would like to write a comment on an interesting article, present software or work of common interest, e-mail some information to editor[AT]asl-network.org.